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Does strike action stimulate trade union membership growth?

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ABSTRACT

Most of the literature on strikes has addressed one of four issues: causation, variation between sectors and countries, trends over time and the relationship between strikes and other forms of collective and individual protest. Very little research has addressed the equally important questions of strike outcomes and trade union membership despite the substantial body of research on the causes of trade union membership decline and strategies for membership growth. In this paper we reverse the usual sequence of trade union membership as a causal factor in the genesis of strikes and examine the impact of strikes on trade union membership levels. After setting out the relevant theory and hypotheses, we use a unique seven year dataset of trade union membership joiners and leavers from a major British trade union with a substantial record of strike activity. Controlling for other possible determinants of trade union membership, we find that months in which there is strike action, whether national or local, are associated with a significantly higher rate of membership growth, measured both by the number of joiners and by the ratio of joiners to leavers. Data from new union members suggests that perceived injustice and perceived union effectiveness both motivate the decision to join.

INTRODUCTION

Scholars of strike action have often deployed trade union membership as an explanatory variable treating union density as an imperfect proxy for the resources required to organize collective action (e.g. Edwards 1986; Franzosi 1995). In this paper we reverse the normal direction of causation and ask whether strike action can stimulate trade union membership by encouraging non-members to join. Throughout Western Europe, including the UK, employees are free to join or not to join a union even where the union collectively bargains on their behalf. Most unionized workplaces therefore comprise a mix of union members and free riders and it is the latter that comprise the focus of this paper. Much of the strikes literature has focussed on four main issues: the causes of strikes, trends over time, variations between countries, and the relationship between strikes and other forms of protest (e.g. Dix et al 2009; Edwards and Hyman 1994; Hyman 1989; Kelly 2015; van der Velden et al 2007). A few scholars have examined outcomes in relation to worker demands (e.g. Lyddon 2009) and the social organization of strikes themselves (e.g. Batstone et al 1978; Franzosi 1982; Hartley et al 1983; Hiller 1928). Whilst strike activity has declined recently (Godard 2011; Piazza 2005; Shalev 1992), the strike still remains an important aspect of contemporary industrial relations because of its disruptive potential. However, the connections, if any, between strike activity and trade union membership remain seriously under-researched, which is curious given the scale of union decline and the potential for collective action to increase union membership.

From a peak of around thirteen million in 1979, UK union membership has declined to approximately 6.4 million by 2014, with a density level of 25.0 per cent (Department for Business, Innovation and Skills 2015). Declining union density is now the most common experience across the advanced capitalist world despite a small number of exceptions (Gumbrell-McCormick and Hyman 2013). A combination of external (economic, legal and

socio-political) and internal (union policy) reasons have been advanced to explain this decline. In response, trade unions began to place renewed emphasis on recruitment and organizing, particularly in the UK, USA, and Australia. Whilst there is much literature concerning why people join unions (e.g. Van der Vall 1970; Klandermans 1986; Waddington and Whitston 1997), it is seldom (if ever) linked to collective action. The focus of research on organizing has involved conscious efforts to distinguish between recruitment and organizing, as recruitment relates solely to membership growth, whereas organizing encompasses this with a growth in activism and self-organization entrenched into overall union strategy (McIlroy 2008: 301). Indeed, 'the question to organize or not to organize a union… is an entirely different proposition from joining or not joining a trade union' (Mills 1951: 306). In 1998, the TUC created its own Organizing Academy in order 'to train a new generation of union organizers and foster "a culture of organizing" within trade unions' (Heery et al 2000: 400). Organizing in the UK has been subject to considerable academic attention, which has generally found that it has not been as successful in terms of membership growth as had first been envisaged (Simms et al 2013).

Whilst mobilization and collective action are central to organizing, there has been limited research into the impact of collective action alone on membership growth (notable exceptions include McCarthy 2009 and Cregan 2013) although British unions involved in national public sector strikes (in 2011 and 2012) have claimed concurrent surges in membership (Gall 2012: LRD 2012). This paper seeks to respond to this gap in our knowledge by analysing the relationship between strike action and union membership in the UK.

The remainder of the paper is structured as follows. Section two outlines the theory and existing evidence on the relationship between strikes and membership growth. Section three provides the background and context of the Public and Commercial Services Union, the

focus of this study, before the data and analytical strategy deployed are outlined in Section four. The results are then presented and discussed in Section five before the final section concludes.

STRIKES AND UNION MEMBERSHIP: THEORY AND EVIDENCE

The relationship between strike action and union membership growth is a complex one and at a theoretical level, four approaches can throw light on possible linkages: resource theory, mobilization theory, union instrumentality theory and social custom theory. Resource theory dates from the 1970s and developed the argument that variations in the success of social movements had less to do with the strength or intensity of member grievances but could best be explained by variations in resources (Edwards and McCarthy 2004). More successful movements, it was claimed, were better at accessing resources such as personnel and finance, developing what some writers have called 'organizational capacity' (Weil 2005). In the context of strikes, organizational capacity may facilitate the recruitment of non-members (free riders) by a union preparing for industrial action. The literature on union organizing has shown higher levels of membership recruitment where union activists have been trained in organizing techniques; the union is committed to an organizing strategy; and where organizing is linked into union campaigns (Simms, et al 2013; Bronfenbrenner and Hickey 2004). Better resourced union branches, with higher ratios of activists to members may therefore be better placed to recruit non-members during periods of strike preparation.

Mobilization theory shifts the focus of research to individual decision making, arguing that the desire for unionism arises from employees who perceive that they are being treated unjustly. Employees must then attribute blame for this injustice to an agency (normally the employer or the state) and also have a sense of agency (or efficacy), that is, the belief that something can be achieved from collective organization and action. Fundamental

to this ‘collective action frame’ is the requirement for a visible, collective organization that is able to provide resources sufficient for such action, with a leadership both able and willing to mobilize members. Workers are thought to calculate both the costs and benefits of collective action and arrive at a view of its likely effectiveness in relation to their demands (Kelly 1998: 51). But how will non-members in a workplace behave in a situation where the union is preparing strike action? Some may come to share the collective action frame promoted by the union, identifying with union member grievances, blaming the employer and arriving at the view that collective action is an effective response. The resources deployed by the union (meetings and leaflets, for example) may be extremely important in signalling to both members and non-members that the union is effective (Fantasia 1988: 83-85; Kelly and Kelly 1992; Klandermans 1984). Consequently mobilization theory would predict that such workers would both join the union *and* participate in the strike.

A considerable body of research into union instrumentality has shown that perceived union effectiveness is one of the strongest predictors of an individual’s propensity to vote for and to join a union both in the USA and the UK (Barling, Fullagar and Kelloway 1992; Charlwood 2002; Clark 2009). Instrumentality theories of union membership would predict that non-members in a partly-unionized workplace may join a union because they perceive strike preparations as evidence of union effectiveness.

Finally, social custom theory argues that union membership levels are shaped by the social norms within a workplace and the consequent degree of social pressure brought to bear on non-union members. Visser’s (2002) study of Dutch trade union membership suggests union decline in that country is partly due to the weakening of pro-union social norms although his measurement of social norms relied on proxy variables and was less than ideal. Nonetheless the theory suggests that in a period of strike preparation pro-union norms may

become more salient for union members and more visible to non-members. The resulting social pressures may therefore encourage some non-members to join the union.

Although these four approaches emphasise different variables, they are not logically incompatible: the deployment of resources, the construction of a sense of injustice, the belief that union action can be effective and the presence of pro-union social norms may be mutually reinforcing elements in a setting where union strike preparations are underway.

However empirical evidence for a positive relationship between strike action and membership growth is mixed. Macro-level studies have explored whether there is a statistical association between aggregate strike trends and union membership – as resource, mobilization and instrumentality might predict. Yoder (1940) did not find a significant correlation between strikes and changes in union membership whereas Cronin (1979), Cohn (1993) and Kelly (1998) all outlined historical evidence that periods of unusually high strike frequency are accompanied by periods of rapid trade union growth, in the UK (1910-1920 and 1968-1974) and in France in the early twentieth century. It is often assumed that workers will join trade unions before taking strike activity but it can also be suggested that periods of general social unrest and heightened strike activity have resulted in membership growth (Edwards 1981: 29, Franzosi 1995: 124-127). Franzosi (1995: 125) found that in Italy, 'patterns for strike activity and unionization go hand in hand, with unionization progressing by big jumps, in the wake of major cycles of industrial conflict'. However the 'muddled causality' of strikes and union membership raises more questions. If union growth follows as well as precedes industrial action, what are the implications for resource mobilization and collective action and how important is the role of union organization? We return to these questions in our discussion. For the moment we should note that these studies have employed the whole economy as the unit of analysis and examined correlations between aggregate trends in membership and strikes. It therefore remains unclear how far periodic surges in

union membership have occurred within non-union workplaces as compared to unionized establishments. Although these studies are suggestive of a strikes-union membership link, they cannot throw much light on the causal relationships (if any) between individual strikes and membership growth.

There are just two studies that have used disaggregated data, in the UK (single trade union and industry) and Australia (multi-workplace), and both showed a positive association between industrial action at the workplace and union joining (McCarthy 2010; Cregan 2013). McCarthy (2010) examined the impact of industrial action on union membership in a recognized environment in the British public sector. Using data over a three year period (2005-2008), he found that the elements which are empirically linked to increases in membership are strike-based mobilizations and large increases in the numbers of activists. However the study used bivariate analysis and did not control for other determinants of union membership levels. Cregan (2013) focused on Australian data collected over a two year period (1997-1998) and found strike action to have a positive impact on union joiners with little or no impact on leavers. However the sample was relatively small, just 260, and comprised even smaller numbers of union joiners and leavers, 21 and 28 respectively. Based on theory and previous research we therefore expect strikes to have a positive impact on union membership by encouraging higher rates of joining. We have no reason to expect any link between strike activity and the numbers of people who leave the union.

THE PUBLIC AND COMMERCIAL SERVICES UNION

To test the hypothesis that strike action increases the numbers of joiners, we examine the case of the Public and Commercial Services Union (PCS) for the years 2007-2013. Formed in 1998 following a series of mergers between more than 40 civil service unions (Undy 2008), the PCS is the largest civil service union in the UK, primarily representing lower and middle

grade civil servants and those working in the private sector on Government contracts. The civil service has been subject to substantial restructuring since the 1980s with dramatic implications for employment relations. The structure of collective bargaining changed from unified national bargaining to fragmented national bargaining as the civil service was broken up with the creation of executive agencies. In this paper, we examine industrial action across the 93 civil service employers covered by PCS. Across all of its bargaining units, the union's total membership was 247,996 in 2013, and density in the civil service was 51.6 per cent (PCS 2014: 12 and 20). Table 1 shows that overall membership declined by roughly 57,000 over the period we examine (about 20 per cent). In the UK trade union membership is voluntary even where the union is recognized for collective bargaining. Individuals have the legal right to join or not to join a union; compulsory membership, as in some US states, is unlawful.

[Table 1 about here]

Civil service trade unionism has historically been described as moderate in nature, in part due to the reliance on the highly institutionalized Whitley system of industrial relations and, more recently, because of a partnership deal signed with the Cabinet Office in 2000 - an arrangement termed 'neo-Whitleyism' (Prowse and Prowse 2007: 54). However, the union experienced a change in leadership in 2001 with the election of Mark Serwotka as General Secretary, accompanied by a left-wing National Executive Committee. These changes led to the union developing 'both an increased emphasis on a militant bargaining agenda, with "ambitious" bargaining goals; and a willingness to use collective mobilizations, such as strikes, to achieve the union's bargaining aims' (McCarthy 2010: 186-187). The union has been the subject of some recent research although very little work has systematically

examined the strikes-membership link (cf. Hodder 2014; McCarthy 2009; 2010; Upchurch et al 2008).

Despite the overall decline in strike activity in the UK and beyond (Godard 2011), the PCS has been involved in a substantial number of disputes and collective mobilizations both individually and jointly with other unions in response to the continuing programme of modernization and austerity being implemented in the civil service. In the period 2007-2013, there was a total of 76 unique disputes with four being Civil Service-wide or part of a nationally coordinated dispute (see Table 2 for a summary of employer-months where disputes occurred). These mobilizations include both strikes and other forms of industrial action such as overtime bans. The strikes are overwhelmingly of short duration, usually one day or less, in line with the trend across Western Europe towards short stoppages rather than the prolonged, all-out strike that was more prevalent in manufacturing (van der Velden et al 2007).

[Table 2 about here]

DATA, METHODS, AND ANALYTICAL STRATEGY

Our research drew on two distinct PCS datasets: first, the central records of union membership, joiners and leavers, as well as disputes, covering the period 2007-13; and secondly, a large survey of new members conducted in 2012. We also interviewed three national officials of the union in early 2016. PCS produces monthly membership figures, as well as the numbers of monthly leavers and joiners to the union for each employer it covers, via its automated check-off system. We matched this monthly membership information (members, joiners, leavers) for each employer to information from records of formal disputes raised by union branches against their employers to the National Disputes Committee at PCS.

Data on membership and action by employer-month was further matched with data on employer characteristics collected as part of the Annual Civil Service Employment Survey (ACSE) statistics collected by the Office for National Statistics.[1]

We exclude employers that are not in the public sector (e.g. outsourced services) and are not covered by the ACSE.[2] Since not all employers appear in every wave (some cease to exist or are merged), we are left with an unbalanced panel of 93 unique civil service employers covered by the PCS, yielding a total sample size of 5,944 employer-months. Of the 93 employers, all were involved in at least one dispute during the course of the panel.

To gauge the effect of strikes on membership growth, we examine three separate dependent variables: (1) the number of joiners in a given employer-month, (2) the number of leavers in a given employer-month[3], and (3) the ratio of joiners to leavers in a given employer-month.[4] We log these variables to aid interpretation of coefficients. We expect strike months to have a positive impact on the rate of joiners and the ratio of joiners to leavers, and to have no effect on leavers.

Strike data and related information on industrial action were inputted from paper records held by the National Dispute Committee at the PCS. These records contain detailed information on the date when unique formal disputes with an employer were raised, the length of the dispute, the reason for the dispute, if and when a dispute was escalated to industrial action, when industrial action occurred, the length of any action, the type of action (whether strike or action short of a strike), and whether any proposed action was subsequently suspended.

Based on these records, we code employer-months with a 1 if a strike occurred and 0 otherwise to create our strike variable. Following McCarthy (2010), if a strike occurred at the beginning or in the first half of the month (on or before the 15th) then the month prior was also coded as a strike month to allow us to identify any strike effect on membership growth

that may spill over into neighbouring months. Similarly, if a strike occurred in the second half of the month (on or after the 16th) then the following month was also coded as a strike month.

We also code employer-months for action short of a strike (ASOS) e.g. overtime bans, working-to-rule; whether the action was part of wider coordinated industrial action i.e. part of national action; and additional dummies indicating whether proposed strikes or ASOS were subsequently suspended (1 if there was action and 0 otherwise). We created a series of five variables indicating the primary reason for the dispute: pay, jobs, working conditions (e.g. changes in working practices), multiple reasons (defined as more than one of the first three reasons), and some other local or miscellaneous reason. Again, employer-months falling under these dispute categories are coded 1, with 0 indicating no dispute. Aside from being of substantive interest in themselves, these industrial action variables act as controls in isolating any strike effect from other, related events.

Using data from the ACSES conducted by the ONS, we also include a set of controls for time-varying employer, employee, and union characteristics. The survey provides annual information on the composition of employees for different employers within the civil service. The controls we used derived from these data are: number of employees (logged), the proportion of employees in different job grades (Senior Civil Servant, Grades 6 and 7, Senior and Higher Executive Officers, Executive Officers, Administrative Officers and Assistants, and a separate category for proportion not reported), the proportion of employees in seven different age groups (16-19, 20-29, 30-39, 40-49, 50-59, 60-64, 65 and over, and a separate category for proportion not reported), as well as the proportion of employees who are female. We also calculate trade union density combining PCS membership information with ACSES on employment levels by employer. Density is a useful proxy for organizing capacity at a particular employer. High density branches will have the resources to recruit non-members

during strikes but the small numbers of non-members in such workplaces may be especially resistant to unionization. Low density branches may be surrounded by many potential recruits but lack the resources to convert non-members into members.

To control for unobserved time-invariant factors, we model the effect of strikes using fixed effects. We include employer fixed effects and cluster standard errors on employers to correct for possible heteroskedasticity. In addition, we include month and year fixed effects to control for variation in membership growth between months and years. The base model includes the strike variable and a time trend to control for the general decline in union membership over the period of our study. We extend this base model by including two sets of variables: firstly, a set of controls relating to the changing composition of employers over time, and secondly, a set of related industrial action variables, including whether ASOS occurred, an indicator of whether the strike or ASOS was part of wider-coordinated national action, a set of dummies indicating reason for the dispute, and indicators of whether strike or ASOS action was subsequently suspended.

In order to shed light on the mechanisms underlying any associations between strikes and membership we use primary survey data collected during a four week period between June and July 2012. PCS experienced a membership growth of 11,183 members during the calendar year 2011. We surveyed (by email) 10,000 randomly-sampled members who joined in 2011. There were 2,387 respondents of whom 2,104 completed the survey (88.1 per cent), yielding a 21.04 per cent response rate. The survey was designed to investigate the extent to which the union's campaigning activities influenced decisions to join PCS and we present some of this data below to add detail as to why people joined PCS in this period. Additionally we present data from interviews with three senior national union officials conducted in 2016 to further illustrate our findings.

RESULTS AND DISCUSSION

The results section is organized as follows. In the first section we examine the strike effect on our three membership growth indicators – joiners, leavers and the joiners to leavers ratio, beginning with the unadjusted effects, before introducing the controls for time-varying employer characteristics (e.g. employer size). We examine the effect of several industrial action variables, which may confound the strike effect and then explore trends in strike effect over time and the link between strike effects and union density. We then provide some indicative evidence on mechanisms by interacting the occurrence of strikes with union density and plotting the results. Finally, we examine evidence on how the "strike effect" evolved over the period of our study to provide preliminary evidence on how the strike effect has evolved over time. The second section considers the link between organizational resources and recruitment. The final section reports evidence on the reasons given by individuals for joining PCS in 2011, and ends with the views of national union officials.

The strikes-membership relationship

Tables 3 to 5 present the results for the three dependent variables joiners, leavers, and the ratio of joiners to leavers, respectively. The baseline specifications are in the first columns (Model 1) – where only strike months are included with a time trend and fixed effects for month, year, and employer. Models 2 to 5 progressively introduce more control variables to isolate the strike effect.

[Tables 3, 4, 5 about here]

Taking the case of joiners first (Table 3), Model 1 indicates a statistically significant and positive effect of joiners during strike months compared to non-strike months. Since we

log the dependent variables, coefficients may be given a percentage interpretation. Thus we find the number of joiners for a given employer is around 22 per cent higher in strike months compared to non-strike months. The time trend is negative and significant, indicating a general decline in monthly joiners over the time period of our study. Since the time trend controls for the general decline in membership, the possible diminishing effect of strike action over time is particularly interesting and we investigate this further (below). Adding in controls for time-varying employer characteristics such as the size of employers and their composition diminishes the effect of strikes on joiners very slightly (Model 2). When adding in action short of a strike (ASOS) (Model 3) and whether any industrial action was part of wider national action, the strike effect is further diminished, although the ASOS and national action variables are themselves not statistically significant. Model 4 introduces a set of dummies indicating reason for the dispute (with no dispute being the reference) and although these variables are not associated with the number of joiners they change the strike effect slightly. Model 5 introduces a variable indicating whether a strike was subsequently suspended, and another variable indicating whether ASOS was subsequently suspended. Introducing these variables changes the interpretation of the main strike and ASOS variables to refer only to strikes and ASOS that went ahead, rather than the general mobilizing effect of a strike being called. The strike and ASOS suspended variables in Model 5 then show the unique effect of a planned strike that is subsequently called off by the union (interpreted much in the same way as an interaction effect). Introducing the strike and ASOS suspended variables increases the strike effect in Model 5 as compared to Model 4, indicating that the inclusion of cancelled strikes weakens the overall strike effect. Indeed, the effect of suspended strikes in Model 5 is statistically significant and strongly negative, and similar in magnitude to the general strike effect. This shows that when a strike is called but then suspended, the number of joiners is no different to non-strike months.

With the case of leavers (Table 4), the strike effect is significant and negative in the baseline specification Model 1, meaning that the number of leavers is lower in strike months compared to non-strike months – about 8 per cent lower. Introducing employer-level controls strengthens the strike effect slightly (Model 2). It is important to control for the size of employers and their composition, as it is likely that some "leavers" could reflect the changing composition of employees and staff expansions/reductions rather than members choosing to leave (e.g., reorganisation and retirement). When the ASOS and national action indicators are introduced in Model 3, the strike effect on stalling leavers increases to almost 15 per cent, indicating that concurrent ASOS and national action have particularly powerful suppressing effects on the numbers of leavers. Overlooking the fact that some strikes concurrently occur as part of wider and coordinated action with other employers underestimates the true strike effect, although ASOS and national action are themselves not significant. As is the case with joiners, it is only strikes and not ASOS that are effective in reducing the rate of leavers.

Introducing the reason for the dispute in Model 4 weakens the strike effect slightly (although it is still significant), indicating some dispersion in the effect of strikes on the rate of leavers, depending on the issue in dispute. Introducing the indicators for whether scheduled strikes or ASOS were suspended (Model 5) reveals no difference in the effects of strikes and ASOS that occurred or those that were suspended. Overall, then, we find that strikes not only increase the rate at which non-members join, but also dampen the rate at which members leave. The next step is to estimate the effect of strikes on net joiners, that is, the difference between joiners and leavers to estimate the net effect of strikes on membership growth.

Table 5 extends our analysis by examining the impact of strikes on the ratio of joiners to leavers (log transformed).[5] Here we find that in the baseline specification (Model 1), the ratio of joiners to leavers is about 26 per cent higher than in non-strike months. The

association is barely altered when introducing time-varying employer characteristics (Model 2) (e.g. changing composition or staff reductions). Adding in controls for whether ASOS occurred as well as a scheduled strike and whether the action was part of national action increases the strike effect to around 31 per cent higher net recruitment in strike months than in non-strike months (Model 3). When reason for the dispute is included, the association is reduced slightly (Model 4). As with the case of joiners, when strike months are separated out into those where a strike went ahead and those where a strike is suspended, we find a strong statistically significant and negative effect completely offsetting the positive main effect of strikes. Overall, the strike effect remains when we consider their simultaneous effects on joiners and leavers together as opposed to separately, but not in the (much rarer) case when strikes are suspended – which are more or less no different from non-strike months in terms of net membership growth.

We next consider whether the positive impact of strikes on union membership varies over time, because of changes in the union's environment, in particular the economic crisis that began in 2008 and the election of the Conservative-led coalition government in 2010. To investigate this issue we take Model 5 from Tables 3 to 5 and include an interaction term between the strike effect and the time trend, and predict the strike effect across all time points (i.e. the 84 months covered by our panel). The results are graphed in Figure 1. We find that the positive strike effect on both joiners and net joiners has been getting weaker over time, although it still remains significant in both cases by 2013. With respect to leavers, the strike effect appears to be trendless. These trends imply that, at least in the case of PCS, the strike effect on membership will increasingly be about retaining existing members rather than recruiting new ones as the strike effect converges to zero.

Organizational resources

Why might actual strikes increase the number of union joiners and reduce the number of members leaving? We further extend the estimations in Model 5 in Tables 3 to 5, by graphing strike interactions with the mean density for each employer (which is time-invariant). We do this to get a handle on how the strike effect on joiners, leavers, and net joiners, varies across different levels of organizational resources (proxied by mean density) which gives an indication of the possible underlying mechanism behind the strikes-membership link. One interpretation is that if the strike-membership growth effect stems from increased recruitment and organization during strike months, then the strike effect on membership should be strongest at employers with higher overall union density due to their greater organizing resources. If variation is found between high and low density employers, then this indicates that those union branches with greater organizing capacity should see the largest effects. Alternatively strike preparations in high density branches may increase the salience of pro-union social norms, thereby generating more pressure on non-union members to take up union membership. Of course, no direct effect can be estimated for the effect of mean employer density because it is time-invariant and is absorbed by the employer fixed effects, but its interaction with strikes, which is time-varying, is indicative of this mechanism. The results of these interactions for each of the three dependent variables are displayed in Figure 2.

In the case of joiners, the upward sloping line indicates that the difference in the number of joiners between strike and non-strike months is indeed greater at higher levels of density, indicating that branches with greater organizing resources (and possibly stronger pro-union social norms) are better able to recruit members during strike months compared to lower density employers. At the mean density across all employers (about 36 per cent), the difference in joiner levels in strike months compared to non-strike months is roughly 20 per cent greater. As we move up the density distribution, the effect gets stronger still as shown by

the positively sloping line. At very low levels of density (around 26 per cent and below) the strike effect on the number of joiners is insignificant as compared to non-strike months, indicating that a certain level of organizational resources and/or social pressure are needed for strike action to stimulate recruitment of new members.

With respect to leavers, the effect of strikes on reducing the number of leavers declines as density increases (indicated by the upwardly sloping line). The leavers graph indicates that strikes do reduce the number of leavers but beyond density levels of around 60 per cent, the number of leavers in strike months is no different to non-strike months. This indicates that branches with greater organizing resources are better at retaining existing members compared to lower density branches, so strikes have little effect on individual decisions to leave.

With respect to net joiners, we find positive net recruitment during strike months across all levels of density (with the exception of employers with very low density), and that the effect gets stronger with higher levels of density. This broadly suggests that the strike effect on net recruitment is contingent on organizing resources in terms of whether recruitment comes from higher rates of joiners or lower rates of leavers. At higher levels of density, strikes increase membership through encouraging new members, whereas at low levels of density, strikes increase membership by reducing the number of leavers.

Reasons for joining the union

We next present the survey results as to why people joined PCS in 2011, a dataset which provides another source of evidence on the impact of the union's campaigns and industrial action on individual membership decisions. Respondents were asked to express their level of agreement with the following statement: 'The PCS campaign on civil service pensions, pay and job cuts positively influenced my decision to join PCS' (see Table 6). 67.01 per cent of

respondents agreed or strongly agreed with this statement, with 19.49 per cent stating they were neutral towards the statement. These results suggest that the union's campaigning activities are having a positive impact on membership growth.

[Table 6 about here]

The extent to which union involvement in strike action influenced people's decisions to join was also assessed. PCS participated in the co-ordinated strike activity on pensions which occurred in 2011 and involved over thirty trade unions (Gall 2012). Respondents were asked to express their level of agreement with the following statement: 'The strike action on 30 June 2011 or 30 November 2011 positively influenced my decision to join PCS' (see Table 7). The total number of respondents in agreement (45.0 per cent) shows that the strike action played a significant role in getting non-members to join. 30.1 per cent of new members said they were neutral towards the statement. These data build on the earlier evidence of a link between strike action and union membership growth and show that strikes do affect the decision-making of individual non-members.

[Table 7 about here]

Respondents were also given an opportunity to indicate in their own words which factors had influenced their decision to join PCS and 326 people responded (15.5 per cent of the total sample). The six most frequent responses account for 171 (52.5 per cent) of the total number, and whilst not necessarily representative of the sample as a whole, they provide valuable, additional qualitative information regarding the views of the membership. 15.8 per cent (52) of respondents cited the coalition government as influencing their decision to join the union,

suggesting these new members may have felt a sense of injustice arising from government policy, a key variable in mobilization theory (Kelly 1998). Typical comments included: 'government duplicity'; 'the attack on civil servants by this government'; 'the Conservative Party getting back in power!' and 'George Osborne's horrible smug face'. 8.6 per cent (28 respondents) also indicated that the PCS campaign on pensions was a factor in their decision to join suggesting perceived union instrumentality motivates union joining. The fourth highest response also alluded to instrumentality and indicated dissatisfaction with other civil service unions, for example, 'they [PCS] were more active and militant than FDA which is really a managers union with vested interests'. The final two categories were concerned with bad management practices and job cuts/workplace restructuring with comments such as 'unacceptable Draconian management' and 'the fascist regime I work in' being representative of these 8.3 per cent (combined) responses and again showing evidence of a sense of injustice.

Finally we present findings from interviews with three senior national PCS officials. The Department of Work and Pensions has experienced a significant number of local strikes and the president of the union's DWP section stated that "PCS membership always soars in the run up to the strike… people join a union when it is seen to be doing something for them to improve their conditions at work". She gave an example of a recent dispute in which the union had distributed leaflets to all employees every week, for eight weeks, actions which significantly increased the salience and visibility of the union and raised non-member awareness of union actions. The Vice President of the union argued that "Discussions …in workplaces, union meetings and more communications" were all critical in encouraging non-members to join as they "raised the profile of the union". Finally the union's Head of Organising argued that "Strikes are a moment when members understand collective action. They are forced to make a decision whether they are for or against the action. ….Unions are

able to funnel and organise …anger against injustice. This is why campaigns gain momentum and people join as they fulfil a basic human need". Commenting on the idea that people join when they perceive unions winning improvements in terms and conditions he noted that "It certainly helps if people think they can win, but in many strikes people have no idea if they can win, but they feel they need to act."

Overall, our data suggest there is a strong and robust link between strikes and union membership: months in which a union organizes strike action show significantly higher rates of gross and net recruitment compared to non-strike months. The stronger effect in high density branches, coupled with the evidence of greater resources and strike preparations in such branches, suggests the resource and social custom models throw considerable light on the strike effect. The data from members however also suggests that perceived injustice and perceived union effectiveness are also significant factors in propelling non-members into the union. The diminishing effect of strikes on membership is unlikely to reflect a dramatic decline in union branch resources but is perhaps more likely to reflect shifts in perceived strike effectiveness in the face of an intransigent right wing government. However, more data would be required to test this hypothesis.

As in all empirical studies there are methodological issues with our research. Data comes from just one union in one country and covers a relatively short time frame of seven years. Clearly the generalizability of the findings needs to be explored in data from other unions using different and longer time frames. For example, are the findings specific to the liberal market economies in which unions have strong incentives to recruit members compared to the coordinated market economies such as Germany, in which high bargaining coverage weakens union recruitment incentives? Our quantitative data has allowed us to control for other influences on union joining (and leaving) and to establish robust estimates of the strike effect. On the other hand without longitudinal qualitative data, it is hard to

conclusively establish the causal mechanisms, or indeed the direction of causation, connecting strikes and union joining. However the strike effect in high density branches suggests union resources do play a key role in building membership and results from the 2012 survey suggest strikes do play a direct role in joining decisions. As a further check on direction of causation, we ran supplementary analyses (available from the authors), using fixed effect logits with log joiners and leavers as the independent variables and strike month (or not) as the dependent variable and using the same control variables as before. We find that neither joiners nor leavers significantly predicts strike months and nor do their lags. This supports our interpretation that causality runs from strikes to membership changes rather than membership changes to strike probability.

The weakening of the strike effect over time poses interesting questions: does this phenomenon indicate the impact of poor strike outcomes in the austerity era? Could it be due to strike fatigue, in other words a succession of many strikes over a period of years both weakens the willingness of members to support and participate in strikes and the willingness of non-members to join? Finally, we need to know more about the reasons people join unions around the time of strikes and whether they differ from the reasons that propel people into membership during non-strike periods of time. Differing reasons for joining could impact both the willingness of new recruits to remain in membership and their willingness to participate in other forms of union activity such as office holding.

CONCLUSIONS

Trade unions in the UK have devoted considerable resources over the past twenty years to the recruitment and organization of non-members, both in union and non-union workplaces. The expansion of membership has been conceived as a method of building power so that unions can then bargain from a position of strength, and, where necessary, deploy strike action. In

this research, we have explored the reverse causal sequence, from strikes to membership. Unions have sometimes claimed that strike action has boosted membership but to date there has been very little hard evidence to test these claims. Our data shows that strike action has a positive impact on union membership, even when a very detailed set of other confounding variables are held constant. In the period prior to, during and immediately after strikes, which are normally one day events, more workers join the union and fewer people leave in comparison to non-strike months. These effects are both substantive and significant, although they vary according to whether action is suspended and depend the union organizing resources that are available, highlighting the contingent effect of strikes on membership growth. In particular, the strike effect at higher-density branches stems from increased recruitment of new members, whereas at lower-density employers, the strike effect stems from improved retention of existing members. Furthermore, the mechanisms by which the strike effect comes about appears to be shifting over time: it is becoming less about recruiting new members and more about retaining existing ones, for reasons that remain unclear.

In relation to union policy, our evidence suggests that the low levels of strike activity in the twenty first century are both an effect and a cause of union membership decline and that, other things equal, an increased level of strike activity could well have a positive impact on union membership. It is true the strike effect has weakened over time and it is also true that we do not yet fully understand the mechanisms responsible for the effect. Nonetheless our evidence does suggest that vigorous union campaigning that includes strike action is likely to bring positive membership gains for unions and even in the worst case scenario will not lead to any reduction in membership. What remains unclear is the upper limit on such effects because at some point dramatically heightened strike activity is likely to trigger employer and state counter-mobilization against trade union organization.

Previous research on strikes has concentrated on explaining variation in strike incidence, over time or between sectors and countries, and some work has focused on the costs of strikes, for workers, employers and the economy as a whole. The focus of our research is the gains achieved through strikes for trade unions and their members. Even if strikes are lost – and gauging strike outcomes is difficult and complicated – strikes can still have a positive impact on union membership, increasing the resources of the union and possibly its capacity to launch effective strikes.

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ENDNOTES

[1] ACSE data on characteristics of civil service departments can be downloaded from http://www.ons.gov.uk/ons/rel/pse/civil-service-statistics/index.html.

[2] This results in dropping many small employers which collectively make up less than 0.001 per cent of PCS's total membership.

[3] Leavers are defined as employees who have formally terminated their membership in a given month. PCS also includes in their leavers figures for a given employer-month employees who have not paid their membership dues for three months prior to that month (three consecutive months of non-payment of dues results in automatic membership termination). We cannot distinguish types of leavers with the data. This latter group of leavers could introduce error into the leavers measure, as for a given month, it will include some 'leavers' from three months previously who did not formally terminate their membership but do not show up as a leaver until three months of non-payment of dues has elapsed, when technically they 'left' three months before. Additionally, the leavers numbers for a given month will also not include leavers who will only show up as a leaver in three months due to non-payment of dues. The analyses presented here do not adjust for this definitional issue as the margin of error is likely to be small. In other analyses of the strike effect on leavers (not shown) we include controls for three month lags and leads of (log) leavers into the models and found similar results.

[4] We experimented with net joiners and net leavers as dependent variables and found similar results.

[5] For this analyses, we take the ratio of joiners to leavers (log transformed) since calculating net joiners (i.e. the number of joiners minus number of leavers) results in negative numbers and so cannot be log transformed.

TABLES

Table 1. PCS membership statistics, 2007-2013

	2007	2008	2009	2010	2011	2012	2013	Δ 2007-2013
Members	295,947	290,586	292,125	282,179	270,342	254,575	238,991	-56,956
Joiners	19,057	15,732	17,857	14,633	7,358	8,826	7,425	-11,632
Leavers	29,855	23,425	21,618	27,856	24,373	21,595	21,084	-8,771
Net joiners	-10,798	-7,693	-3,761	-13,223	-17,015	-12,769	-13,659	-2,861
Joiners : leavers ratio	0.638	0.672	0.826	0.525	0.302	0.409	0.352	-0.286

Notes: Membership figures not adjusted to take into account changes in workforce size and reorganization of employers covered by the PCS. Figures are for December.

Table 2. Employer-months featuring disputes and action

		2007	2008	2009	2010	2011	2012	2013	Total
Employer-level disputes	Open dispute	15	83	39	19	31	52	24	263
	Strikes called	2	20	7	7	8	16	7	67
	ASOS called	10	53	24	14	19	23	11	154
	Strikes suspended	1	0	0	0	0	5	0	6
	ASOS suspended	0	0	0	0	0	4	0	4
National-level disputes	Open dispute	346	130	0	293	296	363	136	1,564
	Strikes called	346	18	0	293	296	219	136	1,308
	ASOS called	138	0	0	0	0	144	0	282
	Strikes suspended	0	0	0	148	0	0	0	148
	ASOS suspended	0	0	0	0	0	0	0	0
Total strike months		348	35	7	296	302	232	142	1,362
Total employer-months		822	788	872	884	888	874	816	5,944

Notes: Open disputes refer to the number of employer-months within each year when there was a live dispute registered with the National Dispute Committee. Strikes refer to number of employer-months within a year in which a strike was scheduled to take place. ASOS refers to number of employer-months in which action short of a strike was scheduled. Suspended strikes refer to number of employer-months within a year in which a strike was scheduled to take place, but was subsequently called off. ASOS refers to number of employer-months in which action short of a strike was scheduled but was subsequently called off.

Table 3. Strikes and (log) joiners

	(1)	(2)	(3)	(4)	(5)
Strike	0.218***	0.214***	0.172**	0.167**	0.214***
	(0.037)	(0.037)	(0.052)	(0.058)	(0.061)
Time trend (t)	-0.004***	-0.003**	-0.003**	-0.003**	-0.003*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ASOS			0.026	0.023	0.015
			(0.045)	(0.054)	(0.054)
National action			0.045	-0.013	-0.003
			(0.039)	(0.078)	(0.075)
Dispute reason					
Pay				0.068	0.074
				(0.083)	(0.082)
Jobs				-0.057	-0.045
				(0.104)	(0.109)
Conditions				-0.013	-0.014
				(0.147)	(0.146)
Multiple				0.062	0.036
				(0.089)	(0.088)
Local reason				-0.120	-0.097
				(0.116)	(0.099)
Strike suspended					-0.375***
					(0.069)
ASOS suspended					0.018
					(0.231)
Constant	1.118***	0.402	0.387	0.379	0.376
	(0.046)	(0.943)	(0.944)	(0.946)	(0.942)
Employer controls	No	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Employer fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.811	0.814	0.815	0.815	0.816
N (employers)	93	93	93	93	93
N (observations)	5,944	5,944	5,944	5,944	5,944

Notes: Linear fixed effects models. Standard errors clustered on employer.
Employer controls: Density, (log) total employees, fraction of employees in age groups (aged 16-19, aged 20-29, aged 30-39, aged 40-49, aged 50-59, aged 60-64, and aged 65+, not reported), fraction of employees in different grades (senior civil servant, grades 6-7, senior and higher executive officers, executive officers, administrative officers and assistants, not reported), and fraction of employees female.
Statistical significance: * p <.05; ** p<.01; *** p<.001.

Table 4. Strikes and (log) leavers

	(1)	(2)	(3)	(4)	(5)
Strike	-0.083**	-0.087***	-0.147**	-0.113*	-0.118**
	(0.025)	(0.025)	(0.049)	(0.045)	(0.044)
Time trend (t)	-0.002*	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ASOS			0.016	0.057	0.053
			(0.053)	(0.044)	(0.045)
National action			0.067	0.041	0.041
			(0.053)	(0.103)	(0.103)
Dispute reason					
Pay				0.008	0.010
				(0.097)	(0.099)
Jobs				-0.130	-0.136
				(0.092)	(0.087)
Conditions				-0.154*	-0.155*
				(0.070)	(0.071)
Multiple				-0.045	-0.042
				(0.110)	(0.112)
Local reason				-0.320*	-0.316*
				(0.140)	(0.144)
Strike suspended					0.016
					(0.060)
ASOS suspended					0.165
					(0.330)
Constant	1.623***	0.565	0.548	0.533	0.532
	(0.050)	(1.215)	(1.217)	(1.210)	(1.212)
Employer controls	No	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Employer fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.799	0.800	0.800	0.801	0.801
N (employers)	93	93	93	93	93
N (observations)	5,944	5,944	5,944	5,944	5,944

Notes: Linear fixed effects models. Standard errors clustered on employer.
Employer controls: Density, (log) total employees, fraction of employees in age groups (aged 16-19, aged 20-29, aged 30-39, aged 40-49, aged 50-59, aged 60-64, and aged 65+, not reported), fraction of employees in different grades (senior civil servant, grades 6-7, senior and higher executive officers, executive officers, administrative officers and assistants, not reported), and fraction of employees female.
Statistical significance: * p <.05; ** p<.01; *** p<.001.

Table 5. Strikes and (log) joiners : leavers ratio

	(1)	(2)	(3)	(4)	(5)
Strike	0.264***	0.265***	0.310***	0.260***	0.296***
	(0.043)	(0.043)	(0.059)	(0.064)	(0.065)
Time trend (t)	-0.002**	-0.003**	-0.002*	-0.002*	-0.002*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ASOS			0.074	0.028	0.017
			(0.062)	(0.062)	(0.059)
National action			-0.058	-0.104	-0.095
			(0.050)	(0.086)	(0.086)
Dispute reason					
Pay				0.068	0.075
				(0.095)	(0.095)
Jobs				0.060	0.065
				(0.104)	(0.104)
Conditions				0.062	0.060
				(0.142)	(0.138)
Multiple				0.172	0.151
				(0.086)	(0.087)
Local reason				0.111	0.135
				(0.135)	(0.131)
Strike suspended					-0.318***
					(0.086)
ASOS suspended					0.172
					(0.404)
Constant	-0.283***	-0.303	-0.303	-0.341	-0.345
	(0.055)	(1.048)	(1.059)	(1.056)	(1.057)
Employer controls	No	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Employer fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.191	0.193	0.193	0.194	0.195
N (employers)	93	93	93	93	93
N (observations)	5,944	5,944	5,944	5,944	5,944

Notes: Linear fixed effects models. Standard errors clustered on employer.
Employer controls: Density, (log) total employees, fraction of employees in age groups (aged 16-19, aged 20-29, aged 30-39, aged 40-49, aged 50-59, aged 60-64, and aged 65+, not reported), fraction of employees in different grades (senior civil servant, grades 6-7, senior and higher executive officers, executive officers, administrative officers and assistants, not reported), and fraction of employees female.
Statistical significance: * p <.05; ** p<.01; *** p<.001.

Table 6. The PCS campaign on civil service pensions, pay and job cuts positively influenced my decision to join PCS

	Total	%
Strongly agree	646	30.70
Agree	764	36.31
Neutral	410	19.49
Disagree	195	9.27
Strongly disagree	89	4.23
	2104	100

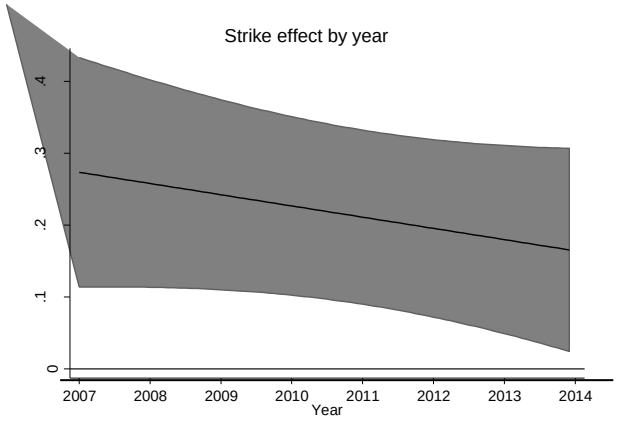
Table 7. The strike action on 30 June 2011 or 30 November 2011 positively influenced my decision to join PCS

	Total	%
Strongly agree	408	19.39
Agree	539	25.62
Neutral	634	30.13
Disagree	370	17.59
Strongly disagree	153	7.27
	2104	100

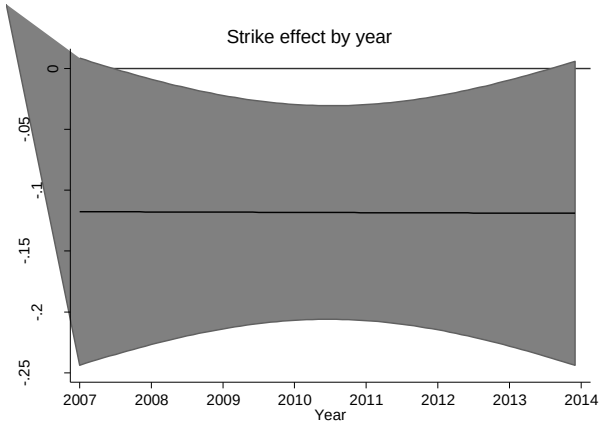
FIGURES

Figure 1. The strike effect over time

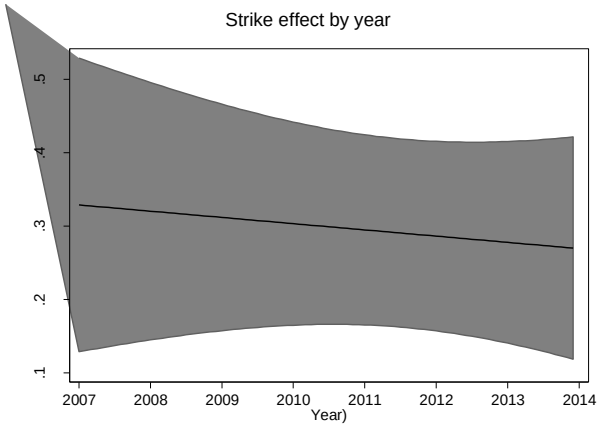
Panel A: (log) Joiners



Panel B: (log) Leavers



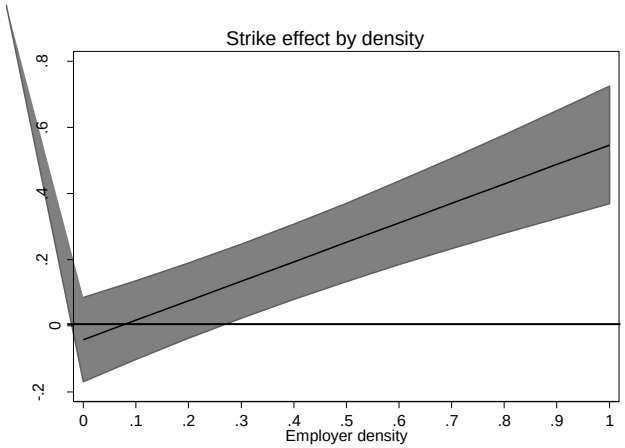
Panel C: (log) Joiners : leavers ratio



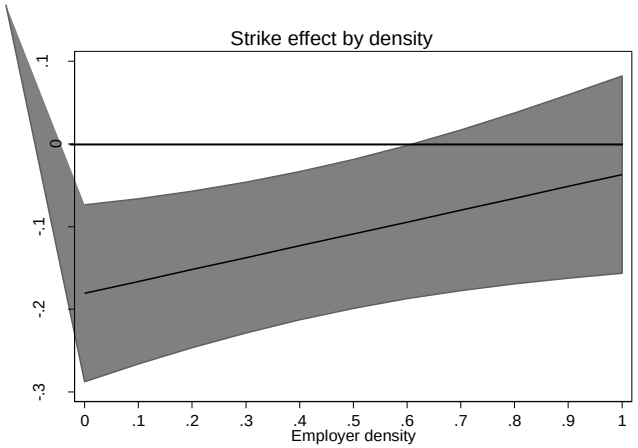
Notes: Average partial effects obtained from Model 5 in Tables 3, 4, and 5 respectively, with the addition of strike interacted with time. Shaded areas are 95% confidence intervals**.**

Figure 2. Effect of strikes on membership by employer density

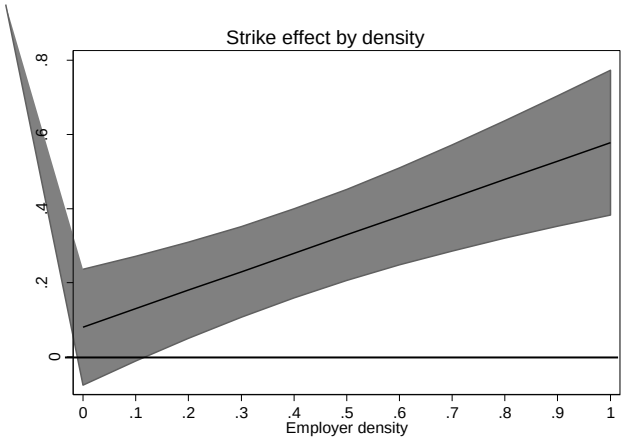
Panel A: (log) Joiners



Panel B: (log) Leavers



Panel C: (log) Joiners : leavers ratio



Notes: Average partial effects obtained from Model 5 in Tables 3, 4, and 5 respectively, with the addition of strike interacted with mean density. Shaded areas are 95% confidence intervals.